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**REMARKS**

As a preliminary matter, it is respectfully submitted that the finality of the outstanding Office Action is premature because the Examiner has set forth a new ground of rejection which was not necessitated by amendment. For example, in the Office Action dated September 22, 2003, claims 1 and 3 were rejected under 35 U.S.C. § 102 as being anticipated by Kornher. In the amendment filed December 22, 2003, claim 1 was amended to include claim 3 and the new limitation "wherein said boundary pointer is capable of changing in a circulating fashion within the plurality of address location of the ring buffer" (hereinafter, "circulating limitation").

In the outstanding Office Action dated March 19, 2004, the Examiner has changed his ground of rejection for claims 1 and 3 (now incorporated into claim 1) from 35 U.S.C. § 102 as being anticipated by Kornher to 35 U.S.C. § 103 as being unpatentable over APA in view of Kornher. However, it is submitted that the amendment to claim 1 did NOT necessitate the Examiner's new ground of rejection. Claim 3 was previously dependent on claim 1 so that the addition of claim 3 into claim 1 did not raise any new issues. Furthermore, the Examiner expressly states in the rejection of claim 1 under 35 U.S.C. § 112, first paragraph, that the "circulating limitation ... *will be ignored in all claims.*" Accordingly, the Examiner did not change the prior art rejection based on the addition of the "circulating limitation." Indeed, the Examiner does not refer to the "circulating limitation" in the body of the prior art rejection against claim 1.

In view of at least the foregoing, it is respectfully submitted that the aforementioned new ground of rejection *over prior art* was not necessitated by amendment, rendering the finality of the outstanding Office Action premature.

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Accordingly, it is respectfully requested that the finality of the outstanding Office Action be withdrawn, and for this amendment to be treated as a response to a non-final Office Action.

Claim 21 stands objected to for minor informalities, claims 1-5, 11-15 and 21 stand rejected under 35 U.S.C. § 112, first paragraph (written description), and claims 1, 2, 4, 5, 11, 12, 14 and 15 stand rejected under 35 U.S.C. § 103. These claims have been canceled rendering the objection/rejections thereto moot.

Claims 6, 7, 10, 16, 17 and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over APA in view of O'Neill. This rejection is respectfully traversed for the following reasons.

The Examiner admits that APA does not disclose adjusting the value of the first and second boundary pointers in accordance with the amount of incoming data. The Examiner therefore relies on O'Neill for allegedly disclosing "a system where first and second boundary pointers indicate end points of a first and second buffer area." However, it is respectfully submitted that the "first and second buffer areas" of O'Neill are directed to distinct ring buffers forming part of a memory which itself does NOT act as one ring buffer. Accordingly, the boundary pointers disclosed in O'Neill are completely unrelated to the alleged boundary pointers of APA. Therefore, it is respectfully submitted that the teachings of O'Neill related to the alleged boundary pointers A/B are not attributable to the alleged boundary pointers of APA.

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APA is directed to a memory whereby the alleged boundary pointers of APA are in fact read pointers (i.e., read pointers that function as boundaries). In contrast, O'Neill discloses a memory having an arrangement with *distinct* read and boundary pointers which are separated from one another. Accordingly, the alleged boundary pointers of O'Neill are not attributable to the read pointers of APA which incidentally *act* as boundaries for the respective memories. That is, APA is directed to read pointers which simultaneously can function as boundaries whereas O'Neill is directed to boundary pointers that are structurally and functionally distinct from read pointers. Absent hindsight reasoning, the prior art does not provide any suggestion or motivation for modifying the *read* pointers of APA with the *boundary* pointers of O'Neill.

As recited in claim 6, and described on, for example, Figure 4A-4D of the specification, the first-in, first-out memory device of the present invention includes "a ring buffer, which acts as one ring, having a plurality of address locations for storing incoming data." In contrast, O'Neill disclose a memory array which consists of a plurality of ring buffers. With regard to O'Neill, each of the address locations, for example, Tx of 1, Rx of 1 and Tx of 2 in Fig.2, acts as one ring buffer, but the memory array as a whole does not act as one ring buffer. It follows that the boundary pointers of O'Neill are further removed from APA in that they operate within a memory that does NOT act as one ring buffer but instead they operate within a memory arranged as a plural ring buffer system. Accordingly, the multi-ring buffer boundary pointers of O'Neill do not function for a single ring buffer as disclosed in APA and there is no enablement, let alone motivation or a suggestion, for providing such an arrangement as recited in claim 6.

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That is, the cited prior art is completely silent as to the *combination* of a ring buffer, which acts as one ring, having a plurality of address locations for storing incoming data, and, plural boundary pointers controlled in accordance with amount of incoming data. The Examiner is directed to MPEP § 2143.01 under the subsection entitled "Fact that the Claimed Invention is Within the Capabilities of One of Ordinary Skill in the Art is Not Sufficient by Itself to Establish *Prima Facie* Obviousness", which sets forth the applicable standard:

A statement that modifications of the prior art to meet the claimed invention would have been [obvious] because the references relied upon teach that all aspects of the claimed invention were *individually* known in the art is *not* sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. (citing *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993)).

In the instant case, even assuming *arguendo* that APA and O'Neill "teach that all aspects of the claimed invention [are] individually known in the art", it is submitted that such a conclusion "is not sufficient to establish a *prima facie* case of obviousness" because there is no *objective* reason on the record to combine the teachings of the cited prior art. At best, the Examiner has attempted to show only that the elements (i.e., ring buffer, which acts as one ring, having a plurality of address locations for storing incoming data, and, plural boundary pointers controlled in accordance with amount of incoming data) of the claimed invention are *individually* known without providing a *prima facie* showing of obviousness that the *combination* of elements recited in the claims is known or suggested in the art.

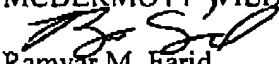
Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the

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independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as the independent claims are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination. Based on all the foregoing, it is submitted that all pending claims are patentable over the cited prior art.

### CONCLUSION

Having fully and completely responded to the Office Action, Applicants submit that all of the claims are now in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below. To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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